CLAIMS:

1. A process of manufacturing a high-intensity discharge lamp comprising an elongate ceramic discharge vessel surrounded by an outer envelope and having a wall which encloses a discharge space containing an inert gas, such as xenon, and an ionizable filling, wherein at both ends in said discharge space an electrode is arranged, between which electrodes a discharge arc can be maintained along a discharge path, characterized in that, in order to improve light transmission of the discharge vessel, said process comprises the step of placing the discharge vessel in contact with a suspension of inorganic particles and allowing the suspension to enter pores in said wall, thus coating the surface of said wall.

2. A process according to claim 1, wherein the suspension is applied to the surface of the discharge vessel in a dipping or spraying operation.

3. A process according to claim 1 or 2, wherein the coated discharge vessel is subsequently sintered in order to allow the coating to become an integral fused part of the ceramic wall of the discharge vessel.

4. A process according to claim 3, wherein the coated discharge vessel is sintered at a sintering temperature varying between 1150 and 1500°C.

5. A process according to claim 4, wherein the inorganic particles are Al_2O_3 particles, and wherein Al_2O_3 grains in the sintered material have an average grain size varying between 0.3 and 10 microns (μm)

6. A high-intensity discharge lamp comprising an elongate ceramic discharge vessel surrounded by an outer envelope and having a wall which encloses a discharge space containing an inert gas, such as xenon, and an ionizable filling, wherein at both ends in said discharge space an electrode is arranged, between which electrodes a discharge arc can be maintained along a discharge path, characterized in that a coating of inorganic particles is made an integral fused part of the ceramic wall of the discharge vessel, which integral fused

part has a pore-filling effect such that the porosity of the finished ceramic wall of the discharge vessel is at least substantially smaller than 0.01 %.

7. A high-intensity discharge lamp according to claim 6, wherein the integral fused part has a surface leveling and a smoothening effect such that the finished ceramic wall of the discharge vessel has a total transmission of more than 98%, the total forward transmission is above 80%, and the real in-line transmission lies between 6% and 80% (for a wall thickness of 0.3 mm and a wavelength of 640 nm).

8. A high-intensity discharge lamp according to claim 6 or 7, wherein said lamp is mounted in a lamp assembly for projection purposes.

9. A high-intensity discharge lamp according to claim 8, wherein said lamp is mounted in a vehicle headlight.

10 A high-intensity discharge lamp according to claim 8, wherein said lamp is mounted in a beamer.